IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A radio communication apparatus comprising:

a terminal interface unit for inputting data;

a radio communication control unit for inputting the data input by the terminal

interface unit, for processing the data based on protocol to judge a data kind, and outputting

the processed data processed based on protocol;

a confidentiality/integrity processing unit for inputting a control signal and the

processed data processed based on protocol from the radio communication control unit,

performing at least one of encryption of the data as confidentiality processing and generation

of a message authentication code for detecting tampered data as integrity processing on the

data input based on the judged data kind, and outputting the data processed to the radio

communication control unit; and

a radio communication unit for inputting, modulating, and sending the data output

from the radio communication control unit.

Claim 2 (Original): The radio communication apparatus of claim 1,

wherein the confidentiality/integrity processing unit inputs the control signal from the

radio communication control unit and selectively inputs the data from the terminal interface

unit based on the control signal input, and

wherein the confidentiality/integrity processing unit performs confidentiality

processing on the data input and outputs the data which has been performed confidentiality

processing to the radio communication unit.

Claim 3 (Original): The radio communication apparatus of claim 2,

wherein the terminal interface unit outputs transparent data and non-transparent data, and

wherein the radio communication control unit inputs the non-transparent data from the terminal interface unit, makes the confidentiality/integrity processing unit process the non-transparent data based on protocol, and

wherein the radio communication control unit controls the transparent data to be transferred from the terminal interface unit to the confidentiality/integrity processing unit to perform the confidentiality processing.

Claim 4 (Original): The radio communication apparatus of claim 1, wherein the confidentiality/integrity processing unit is connected to the radio communication control unit via parallel interface.

Claim 5 (Original): The radio communication apparatus of claim 1, wherein the confidentiality/integrity processing unit is connected to the terminal interface unit with serial interface and connected to the radio communication unit with serial interface.

Claim 6 (Original): The radio communication apparatus of claim 1, wherein the confidentiality/integrity processing unit further includes:

a confidentiality processing unit including an encrypting unit for encrypting the data input; and

an integrity processing unit having a message authentication code appending unit for appending a message authentication code to the data input.

Claim 7 (Original): The radio communication apparatus of claim 6, wherein the confidentiality/integrity processing unit includes multiple encrypting units.

Claim 8 (Original): The radio communication apparatus of claim 6, wherein the confidentiality/integrity processing unit includes multiple message authentication code appending units.

Claim 9 (Original): The radio communication apparatus of claim 6, wherein the confidentiality processing unit and the integrity processing unit form one module which inputs the control signal and the data from the radio communication control unit, and the module performs at least one of the confidentiality processing and the integrity processing on the data input based on the control signal input.

Claim 10 (Currently Amended): A radio communication apparatus comprising:

a radio communication unit for receiving and demodulating data;

a radio communication control unit for inputting data demodulated by the radio communication unit, processing the data based on protocol to judge a data kind, and outputting the processed data processed based on protocol;

a confidentiality/integrity processing unit for inputting a control signal and the processed data processed based on protocol from the radio communication control unit, based on the control signal input performing at least one of confidentiality processing of decrypting the data and integrity processing of detecting tampered data and based on the judged data kind, and outputting the data processed to the radio communication control unit;

a terminal interface unit for inputting the data processed from the radio communication control unit and outputting the data.

Claim 11 (Original): The radio communication apparatus of claim 10,

wherein the confidentiality/integrity processing unit inputs the control signal from the

radio communication control unit and selectively inputs the data from the radio

communication unit based on the control signal input, and

wherein the confidentiality/integrity processing unit performs the confidentiality

processing on the data input and outputs the data processed to the terminal interface unit.

Claim 12 (Original): The radio communication apparatus of claim 11,

wherein the radio communication unit outputs transparent data and non-transparent

data,

wherein the radio communication control unit inputs the non-transparent data from

the radio communication unit and makes the confidentiality/integrity processing unit process

the non-transparent data based on protocol, and

wherein the radio communication control unit controls the transparent data to be

transferred from the radio communication unit to the confidentiality/integrity processing unit

to perform the confidentiality processing.

Claim 13 (Original): The radio communication apparatus of claim 10, wherein the

confidentiality/integrity processing unit is connected to the radio communication control unit

with a parallel interface.

Claim 14 (Original): The radio communication apparatus of claim 11, wherein the

confidentiality/integrity processing unit is connected to the terminal interface unit with a

serial interface, and connected to the radio communication unit with a serial interface.

Claim 15 (Original): The radio communication apparatus of claim 10, wherein the confidentiality/integrity processing unit includes:

a confidentiality processing unit having a decrypting unit for decrypting the data input; and

an integrity processing unit having an integrity verification unit for verifying an integrity of the data input using a message authentication code appended to the data input.

Claim 16 (Original): The radio communication apparatus of claim 15, wherein the confidentiality processing unit includes multiple decrypting units.

Claim 17 (Original): The radio communication apparatus of claim 15, wherein the integrity processing unit includes multiple integrity verification units.

Claim 18 (Original): The radio communication apparatus of claim 15, wherein the confidentiality processing unit and the integrity processing unit form one module which inputs the control signal and the data from the radio communication control unit, and wherein the module, based on the control signal input, performs at least one of processes of the confidentiality processing unit and the integrity processing unit on the data input.

Claim 19 (Currently Amended): A radio communication apparatus for wireless data communication comprising:

a terminal interface unit for data input/output;

a radio communication control unit for processing the data based on protocol to judge a data kind, and for outputting processed data processed based on protocol;

a radio communication unit for wireless data communication; and

a confidentiality/integrity processing unit, provided among the terminal interface unit, the radio communication control unit, and the radio communication unit, which performs at least one of confidentiality processing for encrypting/decrypting data and integrity processing for detecting tampered data on the <u>processed</u> data <u>processed based on protocol</u> input/output from/to the radio communication control unit <u>based on the judged data kind</u>, encrypts the data from the terminal interface unit to the radio communication unit, and decrypts the <u>processed</u> data <u>processed based on protocol</u> from the radio communication unit to the terminal interface unit.

Claim 20 (Original): The radio communication apparatus of claim 19, wherein the confidentiality/integrity processing unit includes a confidentiality processing unit for performing a confidentiality processing on the data input, and an integrity processing unit for performing an integrity processing on the data input, separately.

Claim 21 (Original): The radio communication apparatus of claim 19, wherein the confidentiality processing unit separately includes an encrypting unit for encrypting the data from the terminal interface unit to the radio communication unit, and a decrypting unit for decrypting the data from the radio communication unit to the terminal interface unit.

Claim 22 (Original): The radio communication apparatus of claim 19, wherein the integrity processing unit separately includes a message authentication code appending unit for appending a message authentication code to the data input for performing an integrity processing, and an integrity verification unit for verifying an integrity of the data input using the message authentication code appended to the data input.

Claim 23 (Previously Presented): The radio communication apparatus of claim 19, wherein the radio communication apparatus is a portable mobile phone.

Claim 24 (Original): The radio communication apparatus of claim 6, wherein the confidentiality processing unit and the integrity processing unit employ same encryption algorithm.

Claim 25 (Original): The radio communication apparatus of claim 15, wherein the confidentiality processing unit and the integrity processing unit employ same encryption algorithm.

Claim 26 (Original): The radio communication apparatus of claim 20, wherein the confidentiality processing unit and the integrity processing unit employ same encryption algorithm.

Claim 27 (Original): The radio communication apparatus of claim 1, wherein the communication apparatus is a cellular phone.

Claim 28 (Original): The radio communication apparatus of claim 10, wherein the radio communication apparatus is a cellular phone.

Claim 29 (Original): The radio communication apparatus of claim 19, wherein the communication apparatus is a cellular phone.

Claim 30 (Original): The radio communication apparatus of claim 1, wherein the radio communication apparatus is a radio station for sending/receiving data to/from a mobile station.

Claim 31 (Original): The radio communication apparatus of claim 10, wherein the radio communication apparatus is a radio station for sending/receiving data to/from a mobile station.

Claim 32 (Original): The radio communication apparatus of claim 19, wherein the radio communication apparatus is a radio station for sending/receiving data to/from a mobile station.

Claim 33 (Original): The radio communication apparatus of claim 30, wherein the radio station is either of a base transceiver station and a radio network controller.

Claim 34 (Original): The radio communication apparatus of claim 31, wherein the radio station is either of a base transceiver station and a radio network controller.

Claim 35 (Original): The radio communication apparatus of claim 32, wherein the radio station is either of a base transceiver station and a radio network controller.

Claim 36 (Currently Amended): A radio communication method comprising:

a terminal interface step for inputting data;

a radio communication control step for inputting the data input by the terminal

interface step and for processing the data based on protocol to judge a data kind, and

outputting the processed data processed based on protocol;

a confidentiality/integrity processing step for inputting a control signal and the

processed data processed based on protocol from the radio communication step, performing

at least one of encryption of the data as confidentiality processing and generation of a

message authentication code for detecting tampered data as integrity processing on the data

input based on the judged data kind, and outputting the data processed to the radio

communication control step; and

a radio communication step for inputting, modulating, and sending the data output

from the radio communication control step.

Claim 37 (Currently Amended): A radio communication method comprising:

a radio communication step for receiving and demodulating data;

a radio communication control step for inputting data demodulated by the radio

communication step, processing the data based on protocol to judge a data kind, and

outputting the processed data processed based on protocol;

a confidentiality/integrity processing step for inputting a control signal and the

processed data processed based on protocol from the radio communication control step, based

on the control signal input performing at least one of confidentiality processing of decrypting

the data and integrity processing of detecting tampered data based on the judged data kind,

and outputting the data processed to the radio communication control step; and

a terminal interface step for inputting the data processed from the radio

communication control step and outputting the data.

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Claim 38 (Currently Amended): A radio communication method for wireless data communication comprising:

a terminal interface step for data input/output;

a radio communication control step for data processing based on protocol <u>to judge a data kind, and for outputting processed data based on protocol</u>;

a radio communication step for wireless data communication; and

a confidentiality/integrity processing step, provided among the terminal interface step, the radio communication control step, and the radio communication step, and which performs at least one of confidentiality processing for encrypting/decrypting data and integrity processing for detecting tampered <u>processed</u> data <u>processed based on protocol</u> on the data input/output from/to the radio communication control step <u>based on the judged data kind</u>, encrypts the data transferred from the terminal interface step to the radio communication step, and decrypts the <u>processed</u> data <u>processed based on protocol</u> transferred from the radio communication step to the terminal interface step.

Claim 39 (New): A radio communication apparatus comprising:

a terminal interface unit for inputting/outputting data;

a radio communication control unit for processing data which is at layer 2 or a higher layer of the data input/output by the terminal interface unit based on protocol and discriminating a data kind of the data at layer 2 or a higher layer;

a confidentiality/integrity processing unit for selectively performing a confidentiality processing to encrypt the data and an integrity processing to generate a message authentication code for detecting tampered data, based on a control signal output from the radio communication control unit; and

a radio communication unit for modulating and sending the data input/output by the radio communication control unit or the confidentiality/integrity processing unit.

Claim 40 (New): The radio communication apparatus of claim 39, wherein the radio communication control unit discriminates the data input between non-transparent data including packet data and transparent data including speech data, and outputs a discrimination result as a control signal.

Claim 41 (New): The radio communication apparatus of claim 39, wherein the confidentiality/integrity processing unit selectively performs the confidentiality processing and the integrity processing on non-transparent data, and does not perform the integrity processing but performs the confidentiality processing on transparent data selectively based on the control signal.

Claim 42 (New): A radio communication apparatus comprising:

a terminal interface unit for inputting/outputting data;

a radio communication control unit for processing data which is at layer 2 or a higher layer of the data input/output by the terminal interface unit based on protocol;

a confidentiality/integrity processing unit for performing a confidentiality processing to encrypt the data and an integrity processing to generate a message authentication code for detecting tampered data on the data which is at layer 2 or a higher layer, based on a control signal output from the radio communication control unit; and

a radio communication unit for modulating and sending the data input/output by the radio communication control unit or the confidentiality/integrity processing unit.